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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,898	11/26/2003	Lane Smith	P-103786.3 (UTI)	2886
7590 05/08/2007 Daniel D. Chapman, Esq. JACKSON WALKER L.L.P. 112 E. Pecan Street, Suite 2100 San Antonio, TX 78205			EXAMINER QIN, JIANCHUN	
			ART UNIT 2837	PAPER NUMBER
			MAIL DATE 05/08/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/722,898	SMITH ET AL.	
	Examiner	Art Unit	
	Jianchun Qin	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8, 11, 13-17 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 11, 13-17 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) * | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Behrenfeld (5,986,196) in view of Law (3,797,355), Koshika et al. (5,339,580) and Hardy (4,325,280).

Regarding claim 8, Behrenfeld discloses a device comprising: a patch (10) comprising (col. 7, lines 11-27 and col. 8, lines 11-19) a resilient, pliable body (29) adhesive (22) to a vibratable surface (8) and an integral flexible base (18); and a

Art Unit: 2837

second patch (10) substantially identical to the first patch (10), the first patch (10) for attaching to the vibratable surface (8).

Behrenfeld does not mention expressly: said body is substantially oil-free; said second patch stacking on the first patch; and wherein no portion of the patch is positioned on the vibratable surface of the musical instrument at a point of impact.

Law teaches an oil-free patch positioned on the vibratable surface of a musical instrument (col. 1, lines 51-53; col. 2, lines 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Behrenfeld to select a well known oil-free material such as polyurethane, as taught by Law, for the damping patch on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Koshika et al. teach a vibration damping device, including a plurality of resilient damper pads being vertically stacked (Fig. 1; col. 2, lines 7-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Behrenfeld to stack said first and said second patch together, as taught by Koshika et al., in order to provide the damping device with a simplified construction through which the damping intensity can be easily customized by stacking more or less number of the patches vertically (Koshika et al., col. 3, lines 42-46).

Hardy teaches a device for reducing drumhead ring (Abstract), including: a patch comprising a resilient, pliable, adhesive body and an integral flexible base (col. 3, lines

1-16); and applying the patch to a vibratable surface of musical instrument wherein no portion of the patch is applied at a point of impact (Figs. 1 and 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inventions of Rosthauser et al., as taught by Hardy, to apply the patch to a non-impact point of the vibratable surface in order provide a device which can substantially reduce the drumhead ringing while not interfere with the playing of the drum, and which will present a pleasing appearance on transparent membranes (Hardy, col. 1, lines 50-54).

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Behrenfeld in view of Rosthauser et al. (5,723,194), Law and Hardy.

Regarding claim 11, Behrenfeld discloses a percussion device comprising: a drum having an impact surface and a non-impact surface (Figs. 1 and 2A); a patch (10) comprising (col. 7, lines 11-27 and col. 8, lines 11-19) a resilient, pliable body (29); wherein the patch includes a top adhesive surface (22) and bottom surface (20).

Behrenfeld does not mention expressly: said body is oil-free; the top adhesive surface is oil-free and adhesivable to the non-impact surface of the drum; wherein no portion of the patch is positioned on the vibratable surface of the musical instrument at a point of impact.

Rosthauser et al. discloses a method of making polyurethane coated patch, wherein said patch is oil-free and adhesivable to a flat surface (Abstract).

Law teaches a polyurethane patch positioned on the vibratable surface of a musical instrument (col. 1, lines 51-53; col. 2, lines 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Behrenfeld to use polyurethane to make the body of the damping patch, as taught and motivated by Rosthauser et al. and Law, such that Behrenfeld's top adhesive surface can be omitted and the patch would have improved wet-out property (Rosthauser et al., Abstract).

5. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosthauser et al. in view of Iiyama et al. (JP02003001648A, machine English translation), Law and Hardy.

Regarding claim 13, Rosthauser et al. discloses a method of making polyurethane coated layers, comprising the steps of: providing a flat surface (col. 13, lines 37-48); applying a polyurethane mix to a flat surface, laying a sheet of base material other than a woven fabric onto the polyurethane mix, and allowing the polyurethane mix to cure (col. 13, lines 37-48, lines 58-62 and col. 15, lines 9-38).

Rosthauser et al. do not mention expressly: releasing the cured polyurethane mix and base material from the flat surface; and applying the cured polyurethane mix and base material to a vibratable surface of musical instrument wherein no portion of the cured polyurethane mix and base material is applied at a point of impact.

Iiyama et al. disclose a method and apparatus for producing polyurethane sheet, and teach the step of providing a release sheet (2) underneath the polyurethane mix

(sections 0028, 0029 and 0034), and releasing the polyurethane mix and base material from the release sheet polyurethane mix is cured (Abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Iiyama et al. in the invention of Rosthauser et al. in order to provide a technically convenient and robust method for producing a polyurethane sheet that contains a polyurethane layer coated on a base material for various usages (Iiyama et al., Abstract and section 0015).

Law teaches a polyurethane patch used as a damping pad positioned on the vibratable surface of a musical instrument (col. 1, lines 51-53; col. 2, lines 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the inventions of Rosthauser et al. to a patch for damping a vibratable surface of a musical instrument for intended use, as motivated by Law (col. 1, lines 51-53; col. 2, lines 42-43), in order to provide a vibration damping patch that has improved self-adhesion and wet-out properties (Rosthauser et al., Abstract).

Hardy teaches a device for reducing drumhead ring (Abstract), including: a patch comprising a resilient, pliable, adhesive body and an integral flexible base (col. 3, lines 1-16); and applying the patch to a vibratable surface of musical instrument wherein no portion of the patch is applied at a point of impact (Figs. 1 and 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the inventions of Rosthauser et al. to a damping patch for a vibratable surface of a musical instrument for intended use, in particular, to apply the patch to a non-impact point of the vibratable surface in order to provide a damping device

Art Unit: 2837

which can substantially reduce the drumhead ringing while not interfere with the playing of the drum, and which will present a pleasing appearance on transparent membranes (Hardy, col. 1, lines 50-54).

Regarding claims 14-16, Iiyama et al. teach: providing a release sheet (sections 0028, 0029); removing any trapped air from the mix prior to curing (sections 0044 and 0045); cutting the cured/mixed sheet to a pre-selected shape (section 0049).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Iiyama et al. in the invention of Rosthauser et al. in order to provide a technically convenient and robust method for producing a polyurethane sheet that contains a polyurethane layer coated on a base material for various usages (Iiyama et al., Abstract and section 0015).

Regarding claim 17, the teaching of Iiyama et al. includes: said pre-selected shape is a rectangle (section 0049).

Iiyama et al. do not mention said rectangle has an area between about 1 sq. inch and 12 sq. inches. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose an optimum value for the size of the rectangle, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

6. Claims 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behrenfeld in view of Hardy.

Regarding claim 27, Behrenfeld discloses a percussion device (Figs. 1 and 2A) comprising: a drum head having an impact and a non-impact surface (Figs. 1 and 2A); a patch (10) comprising a resilient, pliable, adhesive body (22, 29), and an integral flexible base (col. 7, lines 11-27 and col. 8, lines 11-19), wherein the base is foam (col. 7, lines 19-22); wherein the patch includes a top and bottom surface (Fig. 2A).

Behrenfeld does not mention: the patch is positioned on the non-impact surface of the drumhead.

Hardy teaches a patch for reducing drumhead ring (Abstract), wherein the patch is positioned on the non-impact surface of the drumhead (Figs. 1 and 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Behrenfeld as taught by Hardy in order to provide a device for substantially reducing the ringing phenomenon associated with a drumhead while not interfering with the playing of the drum and also presenting a pleasing appearance to the drumhead (Hardy, col. 1, lines 50-54).

Regarding claim 29, Behrenfeld discloses a device for dampening a vibratable surface of a musical instrument comprising: a patch (22, 29) comprising a resilient, pliable, adhesive body, and an integral flexible base (col. 7, lines 11-27 and col. 8, lines 11-19), wherein the base is foam and substantially oil-free (col. 7, lines 19-22; col. 8, lines 11-19).

Behrenfeld does not mention: the patch is positioned on the underside of a vibratable surface at a point other than opposite the point of impact.

Hardy teaches a patch for reducing drumhead ring (Abstract), wherein the patch is positioned on the underside of a vibratable surface at a point other than opposite the point of impact (Figs. 1 and 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Behrenfeld as taught by Hardy in order to provide a device for substantially reducing the ringing phenomenon associated with a drumhead while not interfering with the playing of the drum and also presenting a pleasing appearance to the drumhead (Hardy, col. 1, lines 50-54).

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Behrenfeld in view of Hardy, as applied to claim 27 above, and further in view of Law.

Behrenfeld in view of Hardy teach the device including the subject matter discussed above except: said body comprises polyurethane.

Law teaches a patch positioned on the vibratable surface of a musical instrument, said patch having a body comprising polyurethane (col. 1, lines 51-53; col. 2, lines 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Behrenfeld to select a well known material such as polyurethane, as taught by Law, for the patch on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

8. Applicant's arguments received 04/12/07 have been considered but are moot in view of the new ground(s) of rejection.

Claims 8, 11, 13-17 and 27-29 are rejected as new prior art references (3,797,355 to Law; and 5,339,580 to Koshika et al.) have been found to teach, in combination with other cited prior art references, the claimed invention recited in these claims. Detailed response is given in sections 3-7 as set forth above in this Office action.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 8am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Application/Control Number: 10/722,898

Page 11

Art Unit: 2837

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jianchun Qin
Examiner
Art Unit 2837

JQ



LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER